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# Falcon View: The Future Is Here!

CW4 MICHAEL E. CUTHBERT
U.S. ARMY COMBAT READINESS CENTER
FORT RUCKER, ALA.

**One of the key tasks in preparing for any visual flight rules flight is map preparation. Even with the introduction of global positioning system navigation, map preparation is an essential element in obtaining situational awareness and familiarizing yourself and your crew on where and how a flight is to take place. This can be a daunting task, especially when trying to plot all the possible hazards while, at the same time, transcribing information from one map to another.**

Let's take a look at a practical scenario. Imagine you've been given an operations order for a mission requiring four UH-60M assault aircraft and two AH-64D attack aircraft to infiltrate a target in a non-permissive country. The mission requires using the Apaches and other close air support aircraft to soften up the target area before the Black Hawks go in. You're the lead planner for the Black Hawks and must coordinate the mission with the attack and close air support aircraft. The good news is you've got a new tool to help you plan the key elements of your mission. FalconView can help you plan for every action and threat and give you the greatest chance for success.

## What is FalconView?

FalconView is the mapping portion of the Portable Flight Planning Software, the foundation for the Army's Aviation Mission Planning System. FalconView displays various types and scales of maps to include elevation data, aeronautical charts, satellite imagery and geographically referenced overlays.

FalconView also supports a large number of overlay types that can be displayed over any map background. The current overlay set is targeted toward military mission planning users and oriented toward aviators and aviation support personnel. Some of the overlays available are templated threat systems with intervisibility, acquisition and tracking ranges for many anti-aircraft systems, surface danger zones for most aerial-fired weapons systems and munitions, airports, airspace, hazards, manual and electronic chart users update manuals, and a large menu of user-adapted drawings and waypoints selection. Essentially, when a user plans a mission using FalconView, the user's drop-and-drag waypoint data is transferred into a flight data card that calculates times, distances, headings, altitudes, temperatures, ground speeds, aircraft gross weight, hover torque available and required, and even fuel burn rates if the software is set up correctly for the specific aircraft and flight envelope.

So you've received your mission and have your attack planner at your side. You've received the Common Operational Picture data from the S-2 containing all templated threat and enemy positions along with friendly positions. First, you set up the AMPS software with the type aircraft you're flying, using the heaviest and slowest aircraft conditions to set parameters for the calculations that will be done upon completion of your plan, or to check fuel statuses or any other concern you may have during the planning. You also will need to open your weight and balance program with the predicted load, using the heaviest aircraft weight, and then open your performance planning program, using worst-case data input for ambient conditions.

Once you're set up, you can begin the process of route planning. Naturally, you'll select the scale of map that will give you the big picture. Depending on the distances that will be flown, this can be as large as a 1:5,000,000 or as small as a 1:12,500. The map appears with all the Common Operational Picture information that affects the planning of your route graphically presented to you, including borders, airspace, airports, hazards and operational overlays.

You can begin to reverse plan your route by zooming in on the target to one meter resolution imagery. Your target comes up in beautiful resolution and you have a bird's-eye view, north-up photograph with all of your threats depicted in and around the target. You can even see building layouts, trees, wire poles, lights, gun emplacements, armored vehicles and even enemy Soldiers. But more importantly, you can see where you're going to air land or rope your customers! If this bird's-eye view isn't enough, you can select SkyView, which will allow you to change view angles of imagery in 3D and look at your target from any elevation and from any azimuth. Let's say you have selected a landing zone, but you're not sure if it's big enough for the two aircraft infilling first. You use the range and bearing tool to measure the perimeter of the potential LZ, regardless of the scale map or imagery you're using. Lastly, you want to manually highlight some hazards around the target. Just select your drawing tool and highlight anything from wires to tree stumps. You have virtually completed 80 percent of your ASLT target diagram. Talk about do-it-yourself target analysis!

At this point, you can print the map scale you need with the information you want on the map, including user-modified navigational information blocks. Every crew can have the same map with the same printed information.

It's evident FalconView reduces the workload of planning while adding a level of detail and accuracy required in today's mission sets. FalconView greatly enhances the safe operation of all aircraft involved in both single- and multi-ship operations. It brings all elements of planning together on one map at any scale and streamlines the communication processes.

For more information regarding FalconView, go to https://portal.mission-planning.org or contact the Army's Support Desk at 800-773-7739, Option 7.

DID YOU KNOW---**FalconView was developed by researchers at the Georgia Tech Research Institute located in Atlanta. The majority of FalconView development was accomplished under multiple contracts with various DoD agencies. Learn more about FalconView at www.falconview.org.**